FOREIGN AGRICULTURE

October 4, 1976

Exporting U.S. processed foods

Brazil's Orange Juice Exports

World Food Prices

Foreign
Agricultural
Service
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OF AGRICULTURE

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Seagoing container of U.S. almonds arriving at a San Francisco Bay pier for loading aboard ship. An FAS-ERS survey of U.S. food processing firms shows expanding interest in building food export trade. See report beginning on page 8.

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With citrus output booming

Brazil Extends Its Lead As Orange Juice Exporter

IN 1963, when a Florida frost launched Brazil's orange juice industry, few people foresaw the trade boom that would follow. "An industry with an uncertain future," experts said, but by 1968 Brazil had surpassed the United States as the world's top exporter of orange juice concentrate, and today it exports over three times as much as this country.

Rather than tapering off with time, as is usually the case, this growth trend has accelerated recently as new orange trees have come into production and foreign demand has remained strong. In calendar 1975, Brazilian exports of orange concentrate (65°brix) soared 67 percent over the previous year's to nearly 181,000 metric tons for a dollar value of $82 million. And another sizable gain to perhaps $225,000 tons is seen for 1976.

Markets for these exports are diverse, although most of the top buyers are in Western Europe. Last year, the three leading outlets were the Netherlands, taking 42,880 tons; West Germany, 44,115; and Canada, 21,118.

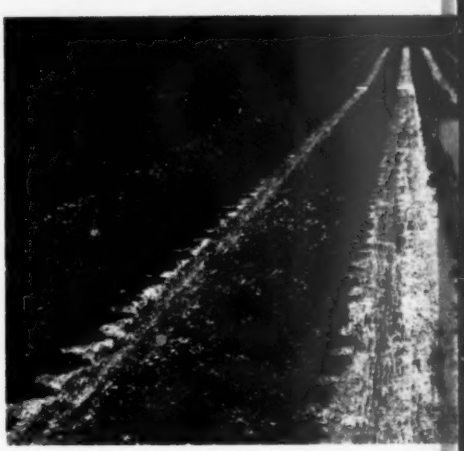
Growth in sales there and in other markets has made Brazil the No. 1 exporter of orange concentrate, with the United States now a distant second. Last year, for instance, the United States shipped only about a third as much as Brazil—66,000 metric tons compared with Brazil's 181,000. And in terms of single-strength juice, the gap enlarges appreciably since Brazil ships largely 65°brix concentrate (requiring 5 parts water to reconstitute) compared with mainly 45°brix (3 parts water) for the United States.

In addition, Brazil exports sizable quantities of concentrate to the United States—almost 21,000 tons in 1975 to make this Brazil's fourth largest market. Giving impetus to this trade is a U.S. custom rebate of the duty paid on the imported orange concentrate if the importer exports a like quantity within 3 years. With the rebate in hand, U.S. processors are able to quote more competitive prices for U.S. juice exports.

This imported Brazilian juice either can be used for blending or sold as such, but in Florida the resulting product cannot be labeled Florida orange juice.

At one time, there were some quality problems associated with Brazil's orange concentrate, deriving in part from an inability to store enough juice to produce blends of uniform quality throughout the season. Also, Brazil's use of high levels of concentration accelerates the loss of volatile fractions that contribute to flavor.

Brazil's rapid rise as an orange concentrate exporter traces back to a fortuituous combination of circum-



stances that arose in the 1960's.

In fact, the nation's actual entry into orange-juice processing occurred almost by chance. The breakthrough came in 1963, when a Florida freeze severely damaged that State's orange crop and sent buyers and sellers scampering to fill the gap. Brazil, whose citrus processing previously had been limited to producing essential oils, was a logical focal point since it already had a large citrus industry with ample room for expansion. A quick infusion of money and technology and speedy construction of processing facilities soon put Brazil on a footing to compete with the United States in the orange concentrate market.

This almost overnight rise of an industry did not produce instant success. In the early stages, there were problems with juice quality, including contamination of the juice by fruit flies. And no sooner had a trade been launched then a market glut developed in 1965, raising worries that such an export-dependent industry would be unable to survive.

The industry did survive, however, and soon began to flourish. From only 1,500 tons in 1963, citrus juice exports shot to 30,100 tons in 1968, allowing Brazil to surpass the United States as the world's leading orange concentrate exporter. They went on to hit 77,300 tons in 1971, 121,000 in 1973, and 181,000 tons last year.

Permitting this rapid growth was a large Brazilian citrus industry, with an abundance of land available to it for further expansion.

Even prior to its entry into the orange juice market, Brazil had been South America's largest producer and exporter of oranges, with around 80,000-100,000 acres producing approximately 8.4 million boxes in 1957. By 1975, area had increased tenfold to about 1 million acres with production 14 times higher at 118 million boxes. This figure is expected to grow by about 11 million boxes, to 129 million, during 1976/77, with half the ouput going for processing.

Center of the export industry is São Paulo State, where trees during the 1976/77 season are expected to reach 84.4 million, compared with 80.2 million and 75.6 million in the 2 previous years. Production, in turn, is seen reaching 95 million boxes, compared with 87 million and 82 million in the 2 previous years. The crop estimate for the season beginning April 1, 1977, is 104-120 million boxes.

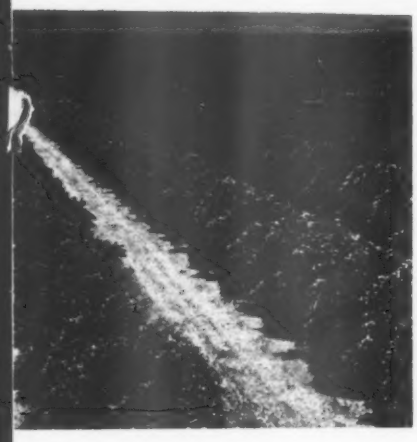
Processing capacity here also has been boosted—from 85 million boxes in 1975/76 to an estimated 90-95 million in 1976/77 as a result of a 50 percent and 25 percent expansion in capacity of the two largest plants. In addition, one plant that was taken over by several cooperatives and the State Government is undergoing an expansion program that should double its operational capacity.

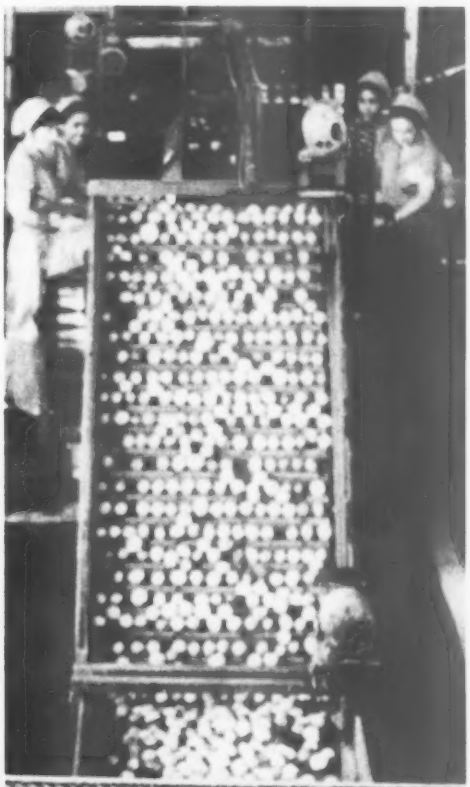
Among the roughly 20 other States that produce citrus in Brazil are Rio de Janeiro, Minas Gerais, Rio Grande do Sul, Sergipe, and Bahia. Production in these States ranges from 2,000 to 10,000 tons, but little of it ends up in the export market.

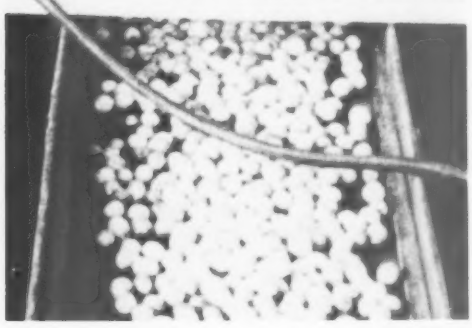
So far, Brazilian producers have achieved most of their production growth through acreage expansion, with yields remaining low at around 1.6-1.8 boxes per tree per year—about half the Florida yield. Nevertheless these yields are higher than in the early to mid-sixties and are expected to get better with improvements in cultural practices including the replacement of old-line trees with virus-free (nucellar) seedlings, many of which are now coming into maturity.

And with land and labor costs rising Brazilian citrus producers can be ex-

Clockwise from right: Conveyor belt leading into orange processing plant; one of the largest citrus groves and one of the few irrigated in Sao Paulo, Brazil's leading citrus State; and rows of citrus seedlings.







pected to put more emphasis on boosting yields.

Meantime, they will continue to enjoy a climate that allows commercial production of citrus within 4 years after planting, compared with 5 years for most areas of the United States, while providing ample rainfall in 2 out of 3 years and virtually no problems with frost.

Also encouraging citrus expansion have been the Brazilian Government's generous production and export incentives. Producers with good potential and sufficient assets can obtain 12-year loans on which repayment begins in the 5th year and interest is only 15 percent per annum—half the commercial rate. The Government also provides a 40 percent subsidy on fertilizer purchases, as well as technical assistance and research support under the auspices of the federal organization for agricultural reseach, EMBRAPA.

Exports of orange concentrate are exempt from payments of the State sales tax (ICM) and the Federal value-added tax (IPI). In addition, the Federal Government creates a tax credit equal to the IPI tax exemption (up to 15 percent maximum) that may be applied toward the liabilities on domestic transactions. The individual States may grant a similar tax credit for the ICM tax. The current export tax credit is 28 percent, divided equally between the IPI and the ICM.

Given these positive factors, Brazil's orange concentrate industry appears to have a bright future. Industry projections for 1976/77 foresee production of orange concentrate rising to 230,000-250,000 tons, from 189,000 in 1975/76, with about 225,000 tons available for export. Contributing to the growth will be the recent expansion in processing capacity and the prevailing higher prices for processing fruit.

Brazil's Seesawing Orange Trade

Brazilian oranges, as well as orange concentrate, enjoyed an export surge last year, but judging from past trends, this is no indication that a new era of expansion has ensued. For shipments of this product have been showing some erratic swings ever since reaching their all-time record in 1939.

The surge in exports last year, traceable in part to strong foreign demand and a good citrus crop, carried Brazilian shipments of fresh oranges some 84 percent above their 1974 level to 73,000 tons. Value of these exports did even better, more than doubling the 1974 level to reach $11.8 million. This is a far cry, however, from the peak of 180,000 metric tons achieved in 1939, or the near-record 159,000 tons set in 1965.

Oranges, after all, were the mainstay of Brazil's citrus export trade until the advent of processing in 1963. At their export peak in 1939, Brazilian oranges had ready markets in nearby Argentina, as well as in the United Kingdom and a number of other European nations.

In subsequent years, exports began a downward spiral that was to reduce shipments sharply between 1939 and 1959. First, World War II interrupted the flow of fruit to Brazil's European markets. Then, a disastrous attack of the tristeza virus swept through the citrus groves, wiping out 10 million trees in São Paulo State alone and cutting exports to a fraction of the 1939 peak. By 1945, shipments had shrunk to 44,000 tons. A brief upturn followed the war, but by 1953, shipments were down to 25,000 tons a year.

From these depths, recovery set in, lifting exports to their 1965 high just about the time the processing industry began siphoning off fresh fruit for its own use.

Exports sank to a 37,000 to 90,000-ton range in succeeding years, with the recent peak of 67,000 tons in 1972 well off the high levels achieved in 1965 and 1939.

Any sustained rebound will hinge on a reordering of priorities of Brazil's citrus producers, who so far have found it more profitable to concentrate on juice oranges. These, of course, depend more on juice content, rather than on the careful, modern cultural practices needed to produce a desirable product for the fresh market.

South Korea Cuts Imports of U.S. Rice

South Korea's total rice imports this year are scheduled at less than 300,000 tons, compared with 483,000 tons in calendar 1975.

Higher rice prices have encouraged Korean farmers to expand both plantings of improved varieties and use of fertilizer. As a result, Korea's rice production has jumped from about 5.5 million tons (paddy) during 1969/72 to 6.5 million tons in 1975, and may hit 6.8 million tons this year. Planted area during this period has remained constant at about 1.2 million hectares.

In 1975, Korea's commercial imports of U.S. rice accounted for about 60 percent of the 472,000 tons of rice imported from the United States. This year, shipments financed under Title I, P.L. 480, will comprise most of the country's rice imports, estimated at about 280,000 tons.

Korea's imports of rice reached a record 1 million tons in 1971, when 513,981 tons came from Japan under concessional terms and most of the 451,457 tons imported from the United States was purchased with P.L. 480 financing.

The value of Korean rice imports hit a record $195 million in 1975 because of high prices. However, Government procurement prices paid Korean farmers were considerably higher than those paid for imported rice. The average price for rice imported from the United States was $404 per ton in 1975, while Korean farmers received more than $600 per ton.

Korean demand for rice has accelerated as Government regulations requiring the mixing of barley with rice have changed. Prior to late 1975, restaurants were required to serve a mixture of 70 percent rice-30 percent barley to customers ordering rice.

However, distribution of unadulterated rice is now permitted because declining rice prices have lessened the importance of mixing rice with barley as a means of conserving foreign exchange.

Most of the gain in Korea's cereal consumption during 1976 will be provided by rice. Higher prices for wheat flour will keep the use of wheat about one-fifth below the per capita levels of the early 1970's.

—JOHN B. PARKER, JR., ERS

U.S. poultry meat sales up, as—

Switzerland's Poultry and Egg Output and Imports Decline

SWITZERLAND'S POULTRY and egg output continued to decline in 1975 in the face of large and cheaper imports, mainly from East European countries; falling consumption, caused by a drop in the number of foreign workers; higher production costs arising from increased import levies on poultry feed; and large carryover stocks from 1974.

Imports of poultry meat and most egg products fell between 1974 and 1975—continuing an earlier downtrend. The United States, however, recovered its 1973 level of exports to Switzerland by nearly doubling its sales of poultry meat. The United States was also a major supplier of Swiss imports of dried egg albumen and a less important source of dried shell eggs and egg yolks.

After last year's reduced production, the Swiss Government—as of April 1, 1976—began to partially refund levies on imported poultry feed. This could result in poultry meat output this year at least matching the 1975 level, or possibly exceeding it slightly. A large number of hatching eggs for broilers were set in 1975, which also indicates an increase in output.

Larger Swiss poultry meat production could lead to reduced imports, but U.S. exports—particularly of turkey parts—stand a good chance of competing strongly in the Swiss market, provided U.S. prices remain satisfactory.

During January-July 1976, U.S. exports of fresh and frozen turkeys and turkey parts to Switzerland rose 39 percent in volume to 1.49 million pounds, while value more than doubled to $1.36 million. By category, U.S. exports of whole turkeys to that country fell in volume and value to 33,000 pounds and $12,000, but exports of turkey parts rose from 881,000 pounds in the first 7 months of 1975 to 1.46 million pounds in the 1976 period and value climbed from $499,000 to $1.35 million.

Production. Swiss poultry meat production in 1975 declined 7.6 percent to 19,500 tons, down from 21,100 tons in 1974.

Total poultry meat consumption decreased by 7 percent in 1975; compared with a drop of 7.9 percent in 1974, while per capita utilization fell to 6.3 kilograms a year, down from 6.9 kilograms in 1974. Of total poultry meat consumption, imported birds represented 52.9 percent (52.8 percent in 1974) and domestic birds 47.1 percent, 0.1 percent lower than the 1974 level. While consumption of domestic poultry declined 7.6 percent, that of imported poultry meat was down 7.2 percent.

The number of hatching eggs set for broilers rose by 9.7 percent, while those for layer-type chickens fell 5.9 percent. Despite a 2.9 percent reduction in the number of layers, Swiss egg production in 1975 stayed at the 1974 level of 720 million because annual per-hen output rose from 208 eggs to 215 eggs.

Consumption of imported and domestic shell eggs was down 2 percent. Per capita consumption dropped from 170 eggs to 166. Because of the rise in feed prices and the drop in producer egg prices, the number of eggs to be sold to pay for 100 kilograms of feed rose from 337 in 1974 to 274 in 1975.

The reduction of layer numbers in 1975, depressed prices, and the drop in the settings of layer eggs signal that Swiss egg production in 1976 may only match that of 1975.

Imports. In 1975, the United States provided Switzerland with imports of 1,377 tons of poultry meat (excluding poultry livers), more than double the previous year's 678 tons. Last year, this country provided 6.3 percent of all Swiss poultry meat imports, compared with 2.8 percent the previous year.

Total poultry meat imports dropped from 23,600 tons in 1974 to 21,900 tons in 1975. Main sources were Hungary, France, Czechoslovakia, and Denmark, the same as in 1974. The U.S. import volume put it in fifth place, up from sixth place the year before. Reduced Swiss imports of U.S. whole birds were more than made up for by imports of parts—particularly of turkey. Toward the end of 1975, the United States was competing strongly with Israel in the sale of calibrated turkey schnitzels.

Imports of poultry liver decreased 38.2 percent, with Denmark again holding top spot in the market. The United States ranked third as a supplier after France, with a total of just 9 tons—down from 11.7 tons a year earlier.

Swiss imports of shell eggs in 1975 were down 3.6 percent to 22,537 tons. Poland replaced Finland as the main supplier and was followed by Hungary, Czechoslovakia, France, the German Democratic Republic, and Romania. Because the poultry industries of some of these countries are subsidized, they were able to offer shell eggs at very cheap prices. All of the East European countries improved their trade positions, with market shares ranging from a high of 21.9 percent for Poland to 4.6 percent for Romania. Finland and, to a lesser degree, France lost ground.

Except for dried shell eggs and egg yolks—which were up 16.3 percent—Swiss imports of other egg products fell in 1975, compared with 1974, by between 19.7 and 56.5 percent, depending on the product. The United States remained the main supplied of dried albumen, but volume dropped 25.5 percent to 216.1 tons.

In the first 7 months of 1976, U.S. exports of albumen amounted to 83,000 pounds, compared with 99,000 pounds in the same period of 1975; the value remained stable at $141,000. The United States exported 143,000 pounds of dried eggs in the January-July 1976 period, the same as in the period of the previous year, but the value increased slightly to $246,000.

DECREASE DEMAND by the food processing industry is the principal reason for the slide in imports of most egg products in 1975. The German Democratic Republic managed to enter new segments of the market and improve its sales position for shell eggs and egg products except albumen.

Imports of shell eggs and of egg products in 1976 are expected to hold near their 1975 levels because of low prices for shell eggs, especially from East European countries. In the case of egg products, the decline in imports should bottom out as food processors take advantage of an upturn in demand expected by the end of summer. Consumption of both eggs and egg products in 1976 is unlikely to drop.

—Based on report from
Office of U.S. Agricultural Attaché
Bern

Lower Rates of Food Price Increases Reported

CANADA HAS joined the list of countries whose official food price indexes (FPI's) have registered slower rates of gain in recent months.

During July 1975-July 1976, Canada's FPI increased by only 1.1 percent, compared with a gain of 14.8 percent in the previous 12-month period.

This downward trend also is noted in the FPI's of the United States (where the rate of increase was 2 percent between July 1975 and July 1976, compared with 11.2 percent during the previous 12-month period) and, to a lesser extent, some West European countries.

In Argentina and Brazil, however, the upward trend in the official FPI's of these two countries continues at a rapid pace.

Australia's rate of inflation has eased somewhat under the Government's austerity program. Two large Australian supermarket chains have frozen prices on their house brands until the end of 1976. Food prices shopped in Canberra on September 1 were mostly unchanged from levels reported 2 months earlier. Sugar prices, however, are expected to increase 12 percent under the new domestic sugar price agreement.

In Brussels, persistent drought and heat waves have seriously disrupted normal supply-and-demand patterns for a large number of food items—particularly beef, eggs, potatoes, and other vegetables.

Despite increased cattle slaughter and lower produce prices, food prices in Brussels on September 1 remained near July's high levels. And an anticipated gradual reduction in beef supplies could cause prices to trend upward during the months ahead. Fresh pork prices already have reached a record high, with retail prices up 3-5.5 percent over those of 2 months earlier.

Copenhagen reported that beef prices are expected to decline soon as a result of drought-induced higher levels of cattle slaughter.

In Brasília, the only beef items available at retail between August 15 and December are frozen cuts from Government stocks.

London's red meat prices—at high levels because of short supplies—are meeting considerable consumer resistance. Pork is somewhat more plentiful than a year earlier, but prices remain high. Bacon prices are moving up, partly as a result of a reduced volume of imports from Denmark. Anticipated increases in feed costs have forced broiler and egg prices up substantially.

In contrast, broiler prices in Brussels dropped 12 percent from the high levels prevailing during the past 6 months. The decrease reportedly is a result of a continued high level of production following the sale of 1,500 tons of broilers

FOOD PRICE INDEX CHANGES IN SELECTED COUNTRIES[1]

Country	Latest month	Index 1970=100	Percent change from Prev. month	Three months	One year
Argentina	July	6,665.0	+ 3.9	+ 20.3	+484.5
Australia	July	175.2	+ 1.0	+ 2.0	+ 11.3
Belgium	May	160.6	+ 1.1	+ 3.5	+ 14.6
Brazil	June	400.5	+ 1.9	+ 10.5	+ 44.3
Canada	July	169.7	+ .3	+ 2.0	+ 1.1
Denmark	July	177.8	+ .4	— 1.1	+ 6.7
France	July	173.5	+ .2	+ 1.0	+ 9.1
Germany	July	137.1	— 1.4	— .1	+ 3.7
Italy	July	200.5	+ .4	+ 1.9	+ 16.2
Japan	July	194.8	+ .7	— 1.0	+ 9.6
Mexico	July	202.5	+ .8	+ 1.3	+ 7.7
Netherlands	July	151.8	+ .3	+ .3	+ 9.0
Sweden	July	170.7	+ .2	+ 2.3	+ 11.6
United Kingdom	July	273.1	— 2.1	— 2.1	+ 12.5
United States	July	158.5	+ .7	+ 1.6	+ 2.0

[1] Based on official price indexes.

FAS SURVEY OF RETAIL FOOD PRICES IN SELECTED WORLD CAPITALS, SEPTEMBER
[U.S. dollars per lb or units as indicated, converted at current exchange rates]

City	Steak, sirloin, boneless	Roast, chuck, boneless	Pork chops	Roast, pork, boneless	Ham, canned	Bacon, sliced, pkgd.	Broilers, whole	Eggs, dozen	Butter	Margarine	Cheese: Edam, Gouda, or Cheddar	Milk, whole, quart	Oil, cooking, quart	Tomatoes
Bonn	4.50	2.88	2.45	4.14	(1)	3.68	0.82	1.13	1.61	0.72	1.30	0.38	1.63	0.28
Brasilia	.77	.67	.94	1.86	1.71	2.45	.59	.80	1.27	.44	1.49	.22	.88	.28
Brussels	3.94	1.99	2.04	2.11	2.70	1.40	.99	1.14	1.66	.67	1.94	.40	1.07	.43
Buenos Aires	.76	.39	.79	(1)	(1)	(1)	.73	1.08	1.24	.69	1.24	.23	2.15	.78
Canberra	1.72	.85	1.81	1.81	2.12	2.50	.96	1.17	.97	.83	1.61	.43	1.46	.61
Copenhagen	4.96	2.33	2.70	2.85	3.21	2.53	.94	1.33	1.53	.47	1.42	.39	1.64	.44
London	3.04	1.44	1.42	1.14	1.46	1.81	.66	.85	.76	.59	.92	.25	1.13	.28
Mexico City	.93	.84	.91	1.20	1.95	1.15	.61	.48	1.15	.62	2.26	.19	.88	.29
Ottawa	1.80	1.19	2.20	1.73	2.28	1.86	.91	.97	1.19	.91	1.69	.59	1.80	.50
Paris	2.86	1.64	(1)	2.46	3.24	3.77	.86	1.35	1.58	.58	1.54	.35	1.06	.18
Rome	2.75	2.13	1.90	(1)	4.45	1.65	.96	1.05	1.60	.70	1.39	.34	.78	.30
Stockholm	5.19	2.98	2.36	4.22	2.75	2.94	1.47	1.54	1.40	.97	2.06	.32	4.38	.68
The Hague	3.79	2.15	2.39	2.93	2.05	3.26	.86	1.14	1.44	.48	1.71	.35	.84	.20
Tokyo	8.80	6.00	3.17	3.30	4.48	3.60	1.28	.94	2.27	1.36	2.38	.68	1.67	.46
Washington	1.77	1.22	1.96	2.25	2.35	1.81	.53	.89	1.40	.73	2.18	.47	1.36	.49
Median	2.86	1.64	2.00	2.25	2.35	2.48	.86	1.08	1.40	.69	1.61	.35	1.36	.43

[1] Not available. Source: U.S. Agricultural Attachés.

to the USSR during the past 3 months.

Toyko's rice prices have advanced by 5.8 percent, following Government action to boost the 1976 resale price.

In Mexico City, all reported food prices have declined substantially in U.S. dollar terms since the previous report. However, prices have not yet fully reflected the peso devaluation of September 1. The Government has announced it will hold the line on a number of price-controlled items, but others are expected to rise significantly in the months ahead.

—SIDONIA R. DICOSTANZO, FAS

Data Qualifications

Food price indexes, which reflect food price changes in general, are obtained from official government sources. They are based on local-currency prices, and are not directly affected by exchange rate fluctuations.

Food prices of selected commodities are obtained by U.S. Agricultural Attachés on the first Wednesday of every other month. Local currency prices are converted to U.S. prices on the basis of exchange rates on the date of the compilation. Thus, shifts in exchange rates directly affect comparisons between time periods.

The objective of the survey is to reflect the level of prices in other countries of items normally purchased by U.S. consumers. Exact comparisons are not always possible, since quality and availability vary greatly among countries. An attempt is made to maintain consistency in the items and outlets sampled, but they are not necessarily representative of those in the reporting countries.

ER 1, 1976
s]

oes	Onions, yellow	Potatoes	Apples	Oranges, dozen	Bread, white, pkgd.	Rice	Sugar
	0.23	0.19	0.20	1.42	0.28	0.65	0.25
	.24	.21	.49	.37	.47	.20	.14
	.23	.20	.25	.67	.30	.41	.34
	.0	.20	.17	.55	.29	.43	.37
	.31	.17	.21	1.20	.40	.36	.17
	.53	.29	.53	2.48	.58	.52	.29
	.18	.21	.25	1.49	.20	.34	.20
	.14	.12	.33	.36	.19	.23	.05
	.20	.09	.40	1.49	.52	.54	.22
	.29	.24	.28	1.24	.64	.32	.25
	.18	.19	.19	1.32	.37	.25	.27
	.66	.23	.64	1.51	.85	.59	.36
	.22	.17	.22	.88	.28	.39	.27
	.35	.46	.92	4.24	.44	.44	.43
	.23	.20	.46	1.47	.48	.35	.21
	.23	.20	.28	1.32	.40	.39	.25

Saudi Arabia Expects Large Cereals Crops

SAUDI ARABIA expects bumper harvests of most of its cereals and vegetables in 1976, owing to improved irrigation facilities, the uses of high-yielding varieties of seeds, and increased use of fertilizer.

Total wheat production in 1976 is estimated at 205,000 metric tons, compared with 194,000 tons in 1975 and 90,000 tons in 1974, according to subsidy payment records. Gains in production in irrigated areas were sufficient to offset the loss in rainfed areas of the Asir Highlands.

Greater use of high-yielding wheat varieties such as Kalyan Sona and Mexipak, coupled with more fertilizer, allowed farmers in Qasim and Riyadh Emirates to bolster yields further in 1976.

According to subsidy payment records, sorghum production in Saudi Arabia increased from 112,000 tons in 1974/75 to 120,000 in 1975/76. Millet production also has benefited from increased fertilizer and improved irrigation in Jizan Emirate. Despite technical assistance from Taiwan, rice production has remained below 4,000 tons annually because other crops requiring less water are more feasible.

Alfalfa production in 1976 is estimated at 1.1 million tons, up 16 percent from last year's level of 950,000 tons. This total includes output beneath date palm trees and in vineyards.

Vegetable production in Saudi Arabia also has increased markedly, owing to subsidies on inputs, improved irrigation, and booming demand in urban centers. Watermelon production increased from 491,000 tons in 1970/71 to an estimated 1.2 million tons in 1975/76.

Most major American varieties of watermelon are planted, with yields exceeding 30 tons per hectare (1 ha= 2.471 acres) in the sandy oasis farms of Qasim Emirate. Exports of watermelons to neighboring countries exceed $10 million annually. New modern roads enable farmers to deliver their melons promptly to urban markets in less than 1 day.

Tomato production in Saudi Arabia also is flourishing. Some farmers in Hofuf Oasis in Eastern Province reportedly obtain yields of 80 tons per hectare from VF-8 tomatoes, a hybrid variety from the United States. The average yield for the entire country is considerably lower—about 11 tons per hectare. Gardeners near Medina grow about 100,000 tons of tomatoes annually. Total tomato production in 1975/76 is estimated at 358,000 tons—four times the 1970/71 level and 26 percent over the 1974/75 crop of 285,000 tons.

New facilities are planned in Qasim Emirate to produce canned tomatoes and tomato juice. Fruit and tomato juices in Saudi Arabia can be purchased by urban shoppers for prices about the same as those of drinking water.

Duty-free imports of fruit juices, along with a ban on use of alcoholic beverages, have bolstered demand for imported juices in recent years. Saudi Arabia's imports of fruit and vegetable juices in 1976 will probably exceed $17 million, with about one-third of the supplies coming from the United States.

The importance of locally grown fresh vegetables and the variety of imported foods has grown considerably in the past 5 years. Both eggplant and squash have become an important part of the Saudi diet, which was once dominated by rice, wheat bread, sorghum, and dates. Eggplant output exceeds 200,000 tons annually, and can be found in markets throughout the year. Squash production was only 18,000 tons in 1970/71, but this year the harvest is estimated to be 58,000 tons.

Date production totaled 252,000 tons in 1970/71, but output has been steadily declining since that point. Production this year is estimated at 235,000 tons, the lowest total in years.

Demand for dates has declined as incomes have increased and a shift to other foods has occurred. Few new date groves have been planted, and labor to care for and harvest dates trees has become more expensive. New processing facilities are scheduled by Government programs to revive production of this commodity. In addition, Saudi Arabia has scheduled imports of thousands of young date trees this winter from nurseries in the United States and other countries where improved varieties are available.

—JOHN B. PARKER, JR., ERS

Processed Food Exports: Growth Area For U.S. Firms

By VERNON L. HARNESS
Foreign Market Development
Foreign Agricultural Service
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Economic Research Service

EXPORT INTEREST HIGH, SURVEY SHOWS

FAS in recent years has paid increasing attention to export opportunities created by U.S. food technology leadership in the development of convenience foods and food control systems.

Coincidentally, the spread of affluence and changing lifestyles in the developed countries have led to rapid growth of hotel-restaurant-institutional (HRI) markets in these countries.

These changes have increased the need for additional foreign marketing information. Responding to this need, FAS and ERS in late 1975 conducted a survey to determine the level of HRI exporting interest among U.S. food processors and the potential for expanding and servicing that sector through FAS foreign market development activities.

To accomplish this survey, a list of all known HRI food processors was compiled from FAS, ERS, and trade association sources. Telephone contracts were made with 250 companies, resulting in 226 completed interviews. Respondents were asked such questions as the locations of their foreign markets, the kinds of products exported, and their knowledge of FAS foreign-market programs. Interviews were conducted by FAS and ERS professional staff.

EXPORTING processed U.S. food products is a thriving, specialized trade that is not only encouraging searches for new and expanded markets but is also attracting new exporters and food products.

A sampling of foreign maketing interest by U.S. food processors conducted by USDA's Foreign Agricultural Service (FAS) and Economic Research Service (ERS) reflects widespread participation as well as interest in overseas sales by the processors interviewed.

Most of the 226 U.S. food processing firms interviewed in the FAS-ERS survey said they were either already engaged in foreign marketing or were interested in entering into such activity. Companies expressing no interest in selling abroad are mostly smaller firms with limited production capacity, intent mainly on meeting domestic demand for their products.

The importance of timely, specific economic information in foreign marketing was emphasized in the FAS-ERS interviews by processors already engaged in export trade as well as by those considering entering it.

More than half the companies engaged in foreign marketing reported receiving notices of FAS overseas promotional activities, and almost the same proportion of firms expressing interest but not engaged in export sales also reported regular receipt of FAS materials.

Eight out of 10 companies that reported receiving FAS materials stated that these materials were important to them.

Some companies reported that the FAS materials would be more useful if they contained more specific information on current economic, political, and financial data for individual foreign markets. However, most companies surveyed expressed interest in receiving Government assistance for their current and planned foreign market activities. FAS market development programs were identified as useful in this regard by most respondents.

A strong thread of interest—even enthusiasm—in foreign marketing was evident in many of the interviews. Optimism concerning the future of export marketing of processed food items was found both in firms presently engaged in this activity and by firms contemplating such a move.

Most U.S. food processors engaged in export trade market their products through the major foreign channels—retail and hotel-restaurant-institutional (HRI) outlets.

Most firms either deal directly with their foreign customers or through export agents. In some instances, both approaches are employed.

The list of processed food products sold overseas covers a wide variety of items. The major product categories are meat, poultry, vegetables, baked goods, fruit, and snack items. Foods in these categories are sold in every conceivable form—fresh, frozen, canned, and dehydrated.

Meat and dairy substitutes, condiments, and beverage items also are popular in foreign HRI markets.

A number of firms complained about the marketing difficulties raised by foreign tariffs as well as such nontariff barriers as food additive and labeling requirements that impede the marketing of full lines of processed products in foreign markets.

Almost all firms presently engaged in foreign marketing of processed foods are selling in such Far Eastern and Southeast Asian markets as Japan, Hong Kong, and Australia, or in Western Europe and the United Kingdom. Other popular markets are Canada, the Caribbean, South America, and the Middle East.

Nearly all foreign markets for U.S. processed foods are in the developed countries, since it is those countries that have rapidly growing food services sectors and thus offer the greatest market potential.

The principal reasons for expecting continued growth of these markets center around three main situations:

• Many food processors are just getting their feet wet in foreign marketing. These companies expect to increase their foreign sales as they gain export marketing experience. They believe they can compete in foreign markets because

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U.S. FOOD PROCESSORS: FOREIGN MARKETING PARTICIPATION

Response to question, "Does your firm sell products overseas?"

	Number firms	*Percent*
Yes	128	51
No, but interested	58	23
No, not interested	40	16
No response [1]	24	10
Total	250	100

[1]Some firms contacted were out of business; others did not choose to respond.

Hungary's Milk-Output Drop Checks Cheese Export Growth

HUNGARY—a longtime cheese exporter—is unable to expand its sales to hard currency countries, according to Nicholas M. Thuroczy, U.S. Agricultural Attaché in Vienna, although demand for Hungarian cheese is strong in most of its traditional markets. Milk production dropped in 1975 and Hungary has switched from being a net exporter of dairy products to a net importer in 1974 and 1975.

For many years, Hungary's exports of cow and sheep cheese have been moderate but reliable hard currency earners, and in 1974 accounted for nearly $10 million. Total cheese exports consisted of 6,328 tons of cow cheese and 995 tons of sheep cheese, for a total of 7,323 tons.

The Council for Mutual Economic Assistance (COMECON), the East European economic grouping, took 1,271 tons of Hungary's 1974 exports of both types of cheese, with most of this total going to the German Democratic Republic and a smaller amount to Albania. The second largest volume went to Lebanon (1,064 tons). The European Community took 897 tons; Austria and Switzerland, 839 tons; Libya, 679 tons; and Greece, 430 tons.

In 1975, several fundamental changes took place in Hungary's cheese export trade, Thuroczy reports. Cheese sales to hard currency countries fell sharply and export earnings from these markets barely approached $2 million. In that year, Hungary sold only 780 tons of cow cheese abroad, equal to about 12 percent of the previous year's level. In the same year, Hungary had to import a large quantity of butter.

The drop in cheese exports to less than 2,000 tons in 1975 (including sheep cheese) was largely because of a shift from cheese and butter production to beef, leaving less cheese available for export. At the current rate, exports for 1976 may be up somewhat to around 2,500 tons. This, however, will be still way below the 7,000-8,000 tons exported in earlier years.

The 1974 feed shortage, with its higher feed costs, made keeping cows for milk production too expensive.

As a result of the drop in cow numbers, an average per cow milk production of only 2,576 liters was achieved, although the Government's plan called for an average output of 2,800 liters per cow. Total milk production for all purposes slumped from 1,959 million liters in 1974 to 1,900 million in 1975.

The shortage in milk supplies for processing is aggravated by a 5 percent rise in domestic per capita milk consumption to 118 kilograms in 1974 and a further 6 percent rise in 1975.

Nearly all of the products made of Hungarian milk still available for export are of sheep milk, largely because domestic consumption of sheep cheese is relatively low and falling even further. But sheep milk outturn also is falling as sheep numbers decline, but not quite as fast as consumption.

Higher sheep cheese export prices could offset the drop in volume somewhat, but the fall from 2,000 tons exported in 1964/65 to the 800 tons shipped in 1975 is probably too great to be compensated for, even though export prices for sheep cheeses are now 70-80 percent higher than for cow cheeses.

Thuroczy notes that the Hungarian Government has a vested interest in shipping more sheep cheese since margins are more favorable than for cow cheese. Last year, for example, sheep cheese exports required no State subsidies, and in 1976, higher producer prices should keep support payments at a minimum. But even Government promptings cannot make up for a sheep milk shortage, at least in the short run.

The short-run outlook for domestic production of cow cheese also is not too encouraging and output in 1976 is likely to be lower than last year's. In anticipation of this drop, TERIMEX, the State export agency, increased its raw materials barter activities toward the end of 1975.

Hungarian cheese rates high on world markets, not only in traditional ones, but also in North Africa, and Spain, both relatively new buyers. Although faced with considerable competition, Hungary believes there is an 8,000-10,000-ton market a year for its high-quality cheese in the years immediately ahead. Furthermore, Hungary also believes it can find strong markets for its Emmentaler cheese in many countries, even in Switzerland.

Soviet Industrial Output of Meat Down

Industrial output of meat in the USSR from Government-held supplies continued to show a further decline—21 percent less in January-July 1976 than in the same period a year earlier. Output equaled only 3.85 million tons, 1 million tons less than in January-July 1975. This sharp drop was because of unusually poor feed supplies from the 1975 crop season, heavy livestock slaughtering in 1975, and good pasture and forage crop development this year, which contributed to reduced livestock slaughter.

In 1975, because of the severe drought, the Soviets were forced to carry out heavy distress slaughter of livestock beginning in July. As a result, industrial output of meat in that month rose by almost a third, compared with that in July 1974, and was far above output levels in July 1972 and 1973. However, because of heavy slaughtering last year and greatly improved pasture by mid-1976, Soviet livestock slaughter was below normal this July, resulting in a drop in industrial meat output of more than a third.

Soviet industrial production of meat from Government-held supplies for the month of July in the years between 1972 and 1976, inclusive, in thousands of tons, was: 1972, 525; 1973, 477; 1974, 574; 1975, 739; and 1976, 481. Production in January-June for these years—also in thousands of tons—was: 1972, 4,133; 1973, 3,851; 1974, 4,365; 1975, 4,859; and 1976, 3,864.

Industrial output of other livestock products such as butter and whole milk during January-July 1976 showed mixed results. Butter output, which dropped 4 percent during January-June 1976 from the year-earlier level, showed some improvement in January-July, reaching 756,000 tons, a reduction of only 2 percent. On the other hand, whole milk production, which reached 13.8 million tons in January-July 1976, continued to lag 4 percent behind the level of a year earlier. This was the same percentage production lag as in January-June of this year.

—ANGEL O. BYRNE, ERS

Spain's Olive Industry Looks for New Markets

By FRANKLIN D. LEE
Foreign Commodity Analysis, Fruits and Vegetables
Foreign Agricultural Service

BOOMING OLIVE harvests, dependence on one market outlet (the United States), and saturated domestic demand have combined to launch the Spanish table olive[1] industry — the world's largest producer and exporter— on a search for new markets. Further impelling the search is the increasing U.S. and Greek challenge to Spain's dominance of the world olive market.

In 1975, with acreage reported at 152,100 hectares, Spain produced 142,000 metric tons of olives, 8 percent less than the record crop of 154,400 tons harvested in 1972, but a commanding 53 percent over the 1974 output of 93,000 tons. The apparent drop in the 1974 crop was directly attributed to severe drought conditions in the major producing regions during blossoming.

In the early 1970's, Spain's production and acreage mushroomed, primarily owing to the Government Agricultural Development Program.

For the olive industry, this provided funds for improving existing farms, as well as establishing additional groves on better soils near usable irrigation sources. Also included was technical aid to farmers, provided by research centers located around the country.

On the export side, Spain's past performance has been good. Spain's olive exports during the 1966-70 period averaged 45,000 tons annually, peaking at 67,000 tons in 1970. During the subsequent 5-year period, 1971-75, Spain's exports grew considerably, averaging 72,000 tons annually—60 percent over those in the previous 5-year period. As with production, Spain's olive exports also have had some Government assistance in the way of subsidies. These export subsidies have been challenged by the U.S. bottling-repacking industry, as it contends that such aid constitutes unfair competitive practices.

During 1970-74, Spain's olive shipments to the United States averaged roughly 39,000 tons, or 52 percent of Spain's total exports. During the prior 5-year period, U.S. imports had accounted for 73 percent of total exports of Spanish olives. While the percentage taken by the United States is trending downward, U.S. imports, in absolute terms, have actually risen.

Contributing to a dip in Spanish olive exports to the United States in 1973 and 1974 was an investigation of Spanish subsidies on bottled olives shipped to the United States, conducted by the U.S. Department of the Treasury, Bureau of Customs. The investigation resulted in an additional duty of 2.9 percent on Spanish bottled olives imported into the United States.

U.S. imports of Spanish olives in 1975 totaled 26,700 tons, valued at $55.5 million, accounting for over one-third of total U.S. imports from Spain.

HISTORICALLY, Spain's olive exports to the United States have been in bulk form. Once imported, the olives were repacked in retail containers by the U.S. bottling-repacking industry. However, during the 1960's, Spain established its own bottling industry and began shipping retail packs directly to the United States. Since that time, bulk olive shipments from Spain to the United States have been trending downward, while retail pack exports have risen. Currently, in terms of volume, retail pack imports outnumber bulk shipments 4 to 1.

Compounding the problems of Spain's olive industry, U.S. olive growers, faced with mounting surpluses and shrinking domestic demand for the California-style black olive, are actively considering expanding their output of the same green olives currently purchased from Spain. Should California green olives make inroads into the well-established Spanish market in the United States, pressures from black olive surpluses would ease as more U.S. processors diverted olives destined for black olive production to green olives.

Other than the United States, there are virtually no single large markets for Spanish olives, as the other 50 percent of Spain's olive exports are scattered in small amounts to the rest of the world. Italy, France, and Canada are the only other sizable purchasers, together accounting for about one-fourth of Spain's total exports.

Although Spanish olive exports to these countries have been trending upward recently, the situation could change drastically. During 1970-74, Spain was unchallenged as the world's top exporter of green olives. Now, with the United States moving in the direction of expanded green olive production, and Greece expanding its olive acreage, competition on world markets could become much keener. By virtue of its long-standing acceptance around the world, however, Spain will definitely have the advantage.

To make up for the increased competition from other countries, Spain is seeking new buyers in its own domestic market, Europe, South America, and the Middle East. Spain's domestic

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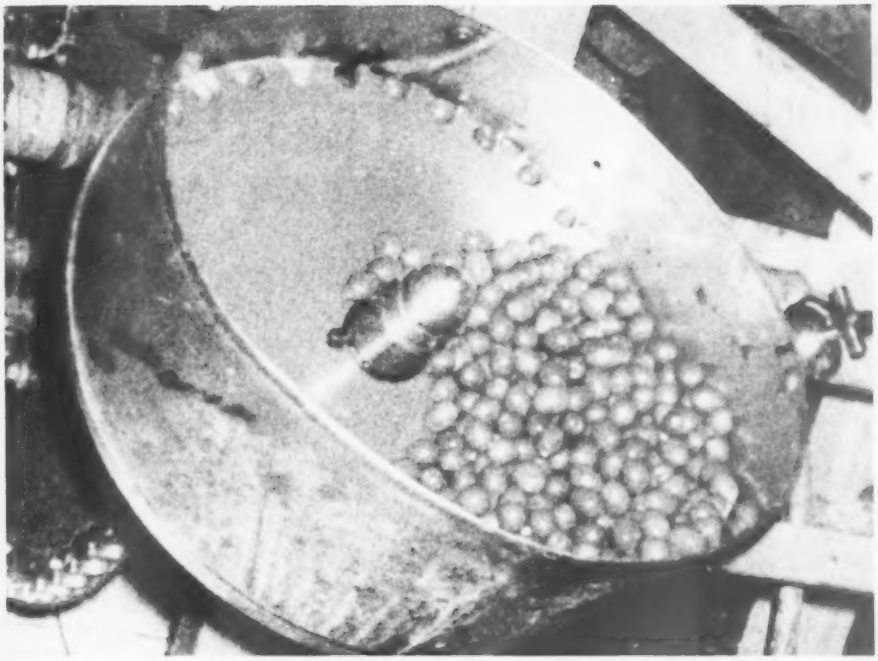
[1] Unless otherwise noted, the term "olives" refers to olives for table use.

Note: A detailed report on Spain's olive production and exports is in preparation and will be published as FAS M-273.



Left, place-packing olives by hand in Seville. This method is on the decline, owing to rising labor costs. Above, closeup of an automatic olive pitter machine.

market, now inundated with nonexportable olives, can absorb some of the new supplies, assuming current promotional efforts are effective.

With the anticipated accession of Spain to the European Community (EC), Spanish olives could be in a very strong competitive position, as Spain's exports to major markets of Western Europe would flow unimpeded by tariffs and other barriers.

Spain already has its foot in the door of East European countries, as Spain has long shipped small quantities of green olives to Bulgaria, Romania, and Poland. Promotional efforts in these countries will have to be intensified, as the majority of them prefer products that would help to increase the protein intake of its citizens.

As for the Middle East markets, Spain has exported only small quantities there, primarily to Saudi Arabia, Iran, Kuwait, and Iraq. Clearly, however, Spain must make an all-out effort in market development in these areas, if it is to keep its number-one status in the table olive market.

SPAIN: TABLE OLIVE EXPORTS, BY DESTINATION, CALENDAR 1965-74
[Metric Tons]

Year	Canada	France	Italy	United States	Other	Total
1965	23	156	1,954	244	1,682	4,059
1966	3,750	832	678	37,248	7,386	49,894
1967	3,342	1,019	1,623	30,152	5,427	41,563
1968	4,678	458	842	41,725	5,155	52,858
1969	4,183	1,203	1,540	30,547	6,980	44,453
1970	3,181	4,915	4,951	38,054	16,120	67,221
1971	3,824	7,454	9,510	37,751	15,978	74,517
1972	4,289	4,665	6,236	42,043	15,604	72,837
1973	4,333	6,795	8,777	40,028	21,442	81,375
1974	4,779	8,347	10,164	35,874	20,732	79,896

States of Virginia And Pennsylvania Win Export Awards

Resourceful, aggressive overseas marketing efforts by the Pennsylvania and Virginia Departments of Agriculture have earned the two State agencies the coveted Presidential "E" Awards, given for outstanding performance in promoting U.S. exports.

Significant increases in livestock exports from Pennsylvania and Virginia were important factors in determining these winners of the awards, which are the first to be presented to any state department of agriculture.

Pennsylvania exporters have built efficient facilities near Harrisburg for air shipment of breeding cattle, while Virginia shippers have developed modern port equipment for transport of breeding stock and feeder cattle by water as well as by air.

The two States also are leading exporters of fresh fruit—especially apples—and of processed foods.

Virginia's cattle exporters, working with State and Federal (including FAS) officials, scored a major breakthrough in 1964 with the first shipload of feeder cattle from the United States to Italy in 50 years. Other shipments of feeder cattle followed, and several years later, Virginia exporters made their first major shipment (191 head) of breeding stock to Portugal.

Virginia's processed foods—including turkey and turkey products, pork products, apples and apple products, and smoked eel were featured at several overseas trade fairs resulting in new and expanded orders as well as a greater influx of buyer representatives from abroad.

Pennsylvania's export promotion program was begun in 1967 and has grown steadily since. The State Department of Agriculture cooperates with 185 Pennsylvania firms, brokers, and others engaged in export trade, as well as with FAS.

Most of Pennsylvania's livestock exports are bred heifers shipped by air from Harrisburg International Airport to Europe and Latin America. Since 1967, the Department has participated directly in food trade shows in Japan, Europe, England, and the Caribbean. Pennsylvania food firms are represented at worldwide trade shows.

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Processed Food Exports

Continued from page 8

their product lines are of high quality, are competitively priced, and meet consumer demand.

- Firms already established in foreign markets base their optimism on such factors as new products, new foreign brokers (who can be expected to gain new customers), stronger promotional efforts, and hope for removal or easing of some international trade barriers.
- U.S. processors with and without export experience believe the United States is now more competitive in foreign markets as to availabilities, prices, and quality than it has been for many years. They also are generally optimistic about the longer run supply-and-demand siutation.

The general belief is that U.S. supply capability is more than matched by potential world demand. The acknowledged leadership of the United States in food technology also underpins this general optimism. This leadership is reflected in the great diversity of food product forms, types, package sizes, and prices of items exported by U.S. food processors.

The much smaller number of firms expecting no change or a decline in foreign sales offer such reasons as high duties, nontariff trade barriers, more competition from local and third-country sources, the declining numbers of U.S. armed services personnel overseas, and the unstable world economic outlook.

Almost all of the 128 U.S. food processors responding and now actively engaged in export trade are interested in expanding sales to additional foreign markets, either now or in the near future. Some target countries or areas mentioned are Western Europe, the United Kingdom, Japan, Southeast Asia, and the Middle East.

Although these geographic preferences are similar to those targeted for foreign market penetration in earlier studies, there are some significant differences. There is less interest in Canada, Australia, and the Caribbean, partly reflecting a belief held by some processors that these areas are already saturated from a U.S. export standpoint.

Also, a considerable number of respondents (23 percent) mention "global" or "worldwide" markets as goals in discussing foreign market expansion, possibly reflecting a reticence to disclose their specific country plans as well as a genuine interest in worldwide marketing operations.

U.S. FOOD PROCESSORS: MAJOR FOOD PRODUCT LINES IN OVERSEAS MARKETS

Product line	Number firms	Percent[1]
Meat and poultry	42	33
Vegetables (frozen, canned, dehydrated)	35	27
Baked goods (fresh and frozen)	21	16
Fruits (frozen, canned, dehydrated)	18	14
Snacks (candy, pizza, peanuts, etc.)	17	13
Condiments (jellies, sauces, gravies, etc.)	14	11
Beverage items (fruitbases, coffee, tea)	13	10
Fats and oils (inc. raw peanuts)	10	8
Spices, seasonings	7	6
Soups, soup bases	5	4
Meat substitutes, (soy protein, etc.)	4	3
Egg products (frozen and dehydrated)	4	3
Dairy products	4	3
Dairy substitutes	4	3
Breakfast cereals	4	3
Special products (yeasts, enzymes, etc.)	3	2
Cereal products	2	2
Frozen dinner entrees, prepared, and ethnic foods	1	1

[1] Adds to more than sample number of firms and 100 percent because multiple answers were possible.

U.S. FOOD PROCESSORS: CURRENT AND PROSPECTIVE FOREIGN MARKETS

Country or area	Firms now in foreign marketing				Firms not now in foreign marketing	
	Current markets		New markets interest		New markets interest	
	Number	*Percent*	*Number*	*Percent*	*Number*	*Percent*
Europe and United Kingdom	69	54	31	27	19	33
Southeast Asia and Japan	54	42	24	21	5	9
Canada	24	19	5	6	5	9
Caribbean	24	19	3	3	4	7
Australia and South Pacific	19	15	7	6	3	5
South America	19	15	12	10	—	—
Middle East	15	12	14	12	3	5
Africa	7	6	4	3	—	—
Mexico and Central America	5	4	5	4	—	—
USSR and centrally planned economies	1	1	2	2	1	2
Worldwide	16	13	27	23	19	33
Other	3	2	2	2	1	2
Not sure	5	4	15	13	20	35
Total	[1]128	—	[1]117	—	[1]58	—

[1] Adds to more than sample number of firms and 100 percent because multiple answers were possible.

*U.S. GOVERNMENT PRINTING OFFICE: 1976 211-407/64 1-3